



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

*Am*

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/877,977	06/08/2001	Frederick Douglass	2000-0351	2141

7590  
S. H. Dworetsky  
AT&T CORP.  
One AT&T Way  
Room 2A-207  
Bedminster, NJ 07921

06/23/2005

EXAMINER

LEE, PHILIP C

ART UNIT PAPER NUMBER

2154

DATE MAILED: 06/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/877,977

Applicant(s)

DOUGLIS ET AL.

Examiner

Philip C. Lee

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2005.  
2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-16 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/8/01.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

Art Unit: 2154

1. This action is responsive to the amendment and remarks filed on January 31, 2005.
2. Claims 1-16 are presented for examination.
3. The text of those sections of Title 35, U.S. code not included in this office action can be found in a prior office action.

*Claim Rejections – 35 USC 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Art Unit: 2154

6. Claims 1-3, 6-8 and 11-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Brendel, U.S. Patent 6,772,333 (hereinafter Brendel).

7. Brendel was cited in the last office action.

8. As per claim 1, Brendel taught the invention as claimed of operating a content distribution network switch in a content distribution network comprising the steps of:

receiving a packet from a client associated with a secure communication connection (col. 5, lines 14-21; col. 9, line 63-col. 10, line 4);

extracting information from the packet to identify a cache server in the content distribution network that has state information on the secure communication connection (col. 5, lines 14-21; col. 9, line 63-col. 10, line 4; col. 2, lines 29-39); and

directing the packet towards the identified cache server (col. 5, lines 14-21; col. 9, line 63-col. 10, line 4).

9. As per claim 11, Brendel taught the invention as claimed for operating a cache server in a content distribution network comprising the steps of:

selecting a session identifier that may be utilized by a content distribution network switch to direct packets associated with a secure communication connection to the cache server (col. 7, lines 47-60; col. 8, lines 13-42; col. 11, lines 13-26);

negotiating a secure communication connection with a client (col. 7, lines 47-60; col. 8, lines 13-42; col. 11, lines 13-26); and

maintaining state information for said secure communication connection (col. 8, lines 13-31).

10. As per claim 2, Brendel taught the invention as claimed in claim 1 above. Brendel further taught that the information extracted from the packet comprises a session identifier used to compute a label identifying the cache server (col. 4, lines 26-40; col. 7, lines 9-21; col. 8, lines 12-17).

11. As per claims 3 and 12, Brendel taught the invention as claimed in claims 2 and 11 above. Brendel further taught that the label identifying the cache server is computed from the session identifier by a function  $f(\text{SID})$  where SID is the session identifier (col. 4, lines 26-40).

12. As per claim 6, Brendel taught the invention as claimed in claim 1 above. Brendel further taught that the information extracted from the packet comprises a client address which is associated with a cache server (col. 2, lines 35-39).

13. As per claim 7, Brendel taught the invention as claimed in claim 6 above. Brendel further taught that associations between client address and cache server are stored in a table (col. 2, lines 32-35; col. 7, lines 66-67).

Art Unit: 2154

14. As per claim 8, Brendel taught the invention as claimed in claim 7 above. Brendel further taught that the secure communication connection is a Secure Sockets Layer connection (col. 3, lines 58-61; col. 7, lines 26-29).

*Claim Rejections – 35 USC 103*

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 4-5 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brendel.

17. As per claims 4 and 13, Brendel taught the invention as claimed in claims 3 and 12 above. Brendel did not specifically teach the function  $f(\text{SID}) = \text{SID} \bmod n+1$  where  $n$  is the number of cache servers that can store the state information on the secure communication connection. However, it is well known that the function  $f(\text{SID}) = \text{SID} \bmod n+1$  generates 1 to  $n$  unique numbers and that the servers need to be assigned with unique IDs. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to use the

Art Unit: 2154

function for generating server identifiers within the range of 1:n because by doing so it would allow predetermined range of server identifiers to be uniquely assign to cache servers.

18. As per claims 5 and 14, Brendel taught the invention substantially as claimed in claims 4 and 13 above. Brendel further taught that the secure communication connection is a Secure Sockets Layer connection (col. 3, lines 58-61; col. 7, lines 26-29).

19. Claims 9-10 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brendel in view of Oki et al, U.S. Patent 6,735,206 (hereinafter Oki).

20. Oki was cited in the last office action.

21. As per claim 9, Brendel taught the invention as claimed in claim 6 above. Brendel did not teach using a hash function. However, Oki taught that associations between client address and cache server are generated by a hash function (col. 7, lines 34-59).

22. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teaching of Brendel and Oki because Oki's teaching of generating association using hash function would increase the efficiency of Brendel's system by allowing packets to be mapped to the identified server node within a clustered computing system.

23. As per claim 10, Brendel and Oki taught the invention substantially as claimed in claim 9 above. Brendel further taught that the secure communication connection is a Secure Sockets Layer connection (col. 3, lines 58-61; col. 7, lines 26-29).

24. As per claim 15, Brendel taught the invention substantially as claimed for operating a cache server in a content distribution network comprising the steps of:

negotiating a secure communication connection with a client (col. 4, lines 44-59; col. 8, lines 13-42);

creating state information necessary for reuse of the secure communication connection with the client (col. 4, lines 44-59; col. 8, lines 13-42);

25. Brendel did not teach sharing state information with other cache servers to which client requests may be redirected. However, Oki taught that sharing the state information with other cache servers in the content distribution network to which client requests may be redirected (col. 7, lines 56-col. 8, lines 13).

26. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teaching of Brendel and Oki because Oki's teaching of sharing state information would increase reliability of Brendel's system by allowing other cache servers to continue the session of a failed server (col. 8, lines 2-3).



27. As per claim 16, Brendel and Oki taught the invention substantially as claimed in claims 15 above. Brendel further taught that the secure communication connection is a Secure Sockets Layer connection (col. 3, lines 58-61; col. 7, lines 26-29).

28. Applicant's arguments with respect to claims 1-16, filed 1/31/05, have been fully considered but are not deemed to be persuasive.

29. Because Applicants have failed to challenge any of the Examiner's "Official Notices" stated in the previous office action regarding claims 4-5 and 13-14 in a proper and reasonably manner, they are now considered as admitted prior art. See MPEP 2144.03

30. In the remark applicant argued that

(1) Brendel fails to teach extracting information from a packet to identify a cache server in the content distribution network that has state information.

(2) cited references fail to teach using cache servers capable of storing state information "in conjunction" with matching session identifications as claimed in claims 1 and 11.

31. In response to point (1), Brendel taught extracting information from the packet to identify a cache server in the content distribution network that has state information on the secure communication connection (col. 5, lines 14-21; col. 9, line 63-col. 10, line 4; col. 2, lines 29-39). Brendel taught extracting state information (i.e., SSL session ID) to identify a server (col. 8, line

58-col. 9, line 12). This means the identified server is the server that originally generated the SSL session identifier (i.e., state information as defined in specification, page 5, lines 2-7) during establishment of encrypted connection with client. The server must have stored the established SSL session identifier in order to authenticate a packet from the client [i.e., if an incoming packet received by the server contain a SSL session identifier matching SSL session identifier matching the SSL session identifier stored in the server, then the server will know that the packet is sent from an authenticated client of the encrypted connection].

32. In response to point (2), In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., using cache servers capable of storing state information "in conjunction" with matching session identifications) are not recited in the rejected claim(s) 1 and 11. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).


33. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

34. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE MONTH** shortened statutory period, then the shortened statutory period

Art Unit: 2154

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Lee whose telephone number is (571) 272-3967. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

Philip Lee

  
**ZARNI MAUNG**  
**SUPERVISORY PATENT EXAMINER**